

Investigation of a slow-wave system ... ³⁰⁷⁴³
S/535/60/000/125/004/008
E133/E162

and the results on seven models produced. The effects of varying the various dimensions are demonstrated. The field distribution and the effects of connecting the fins to the walls of the waveguide are investigated. Finally, the higher modes which are possible in the system are considered and investigated experimentally. The longitudinal components of the electric field of the fundamental synphase wave are shown in Fig.1. Theoretical determination of the retardation factor and of the coupling impedance is difficult, due to the complex geometry which is specified by five independent dimensions: a , b , g_E , g_H , d , and also by the period of the structure T and the fin thickness t . The effects of g_E and g_H can be estimated by the relationships developed by L.N. Deryugin and N.V. Trunova (Ref.2: Radiotekhnika, 1959, No.3) and the effect of increasing d is to increase the retardation and to decrease the coupling impedance. T affects these parameters only when it is near to $\lambda_z/2$ in value. For experimental investigation, seven θ -system models were prepared. The models were approximately square in cross-section ($b/a = 0.925$) and the dimensions of all the models are tabulated (see Table 1). The dispersion characteristics of the θ -system - Card 2/

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the retardation factor and the coupling impedance - were obtained by the resonance method, using the models. The construction of the models, the experimental set-up and procedure are detailed. The error in measurement of the retardation factor is estimated at not more than 5% and that for the coupling impedance not more than 20%. The three experimental dispersion curves for models 2, which differ only in their d dimension, are compared with the theoretical curve for a three-channel system with the same g_E , g_H and b , but without side walls ($a = \infty$), and show that increasing d moves the curve towards the low-frequency side. The experimental dispersion curves for the first four models (which have constant g_H and d dimensions, but different g_E dimensions) show that reduction of g_E leads to a small displacement of the curves towards the high-frequency side, but has little effect on the slope. The experimental dispersion curves for models 2 and 5 (which have constant g_E and d dimensions, but different g_H) show that increase of g_H moves the dispersion curve towards the high-frequency side. The relative frequency bandwidth, corresponding to a change in the retardation factor from 4 to 7, was

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10-15% for all the models. Curves of the coupling impedance (at the axis of the θ -system) versus the electrical depth of the channels with: (a) g_H constant, g_E varied, and (b) g_E constant, g_H varied) are produced. Investigation of the field distribution showed the presence of two symmetrically disposed nodal lines of the electric field in the channel between the gaps g_E and g_H . The positions of these lines were investigated. Systems with different values of T were compared, and the results show that, except when T lies between $1/4\lambda_z$ and $1/2\lambda_z$, its value has little effect on the characteristics of the system. The effect of connecting the fins to the waveguide walls was investigated. It was established experimentally that the presence of four metallic connections placed symmetrically at the nodes of the electric field did not change the field distribution of the fundamental synphase wave. Their effect on the dispersion curves was also investigated. Finally, the retarded and accelerated waves and fields, corresponding to E_{110} , E_{210} , E_{120} and E_{220} modes in rectangular resonators were investigated. The electric field distributions obtained experimentally are shown diagrammatically, and the results discussed.

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M.S. Neyman is mentioned in the article. There are 22 figures,
1 table and 3 Soviet-bloc references.

Table 1

Model number	$\epsilon_H b$	$\epsilon_E b$	$\epsilon_H h$	$\epsilon_E h$	d/a
1	0.011	0.054	0.025	0.12	0.01
2a	0.011	0.027	0.023	0.058	0
2b	0.011	0.027	0.023	0.058	0.01
2c	0.011	0.027	0.023	0.058	0.03
3	0.011	0.018	0.023	0.038	0.01
4	0.011	0.009	0.023	0.019	0.01
5	0.032	0.027	0.074	0.061	0.03

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S/535/60/000/125/005/008
EO25/E335

9, 2590

AUTHORS: Voskresenskiy, D.I., Granovskaya, R.A. and
Deryugin, L.N.

TITLE: Investigation of delay systems of the interdigital
type

SOURCE: Moscow. Aviatsionnyy institut. Trudy. no. 125. 1960.
Elektromagnitnyye zamedlyayushchiye sistemy; metodika
izmereniya elektricheskikh kharakteristik. 67 - 91 ✓

TEXT: An experimental study was made of interdigital delay
structures, using the resonance-model method. The dispersion
curves were obtained by determining the resonant frequencies of
models of short-circuited lengths of the structure. The
distribution of the fields and the coupling impedances of the
harmonics were measured on the same models by the absorption
(perturbation) method. The experimental model contained six
periods of the structure enabling measurements to be made at
seven points in the first passband and at six points in the next
passband. These readings suffice for the construction of curves
of delay and coupling impedance versus frequency. The use of six
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S/535/60/000/125/005/008

Investigation of delay systems... E025/E335

periods gives sufficient sensitivity for the absorption method. Two models of the delay structure each with a Q of 2000 but differing in their relative dimensions were used. The electrical height of the system is given in a table for both models in the first and second passbands. Dispersion curves are given for both models showing the delay of the phase velocity of the fundamental, first positive and first negative harmonic. Curves given for the delay of higher harmonics and for the delay of the group velocity as a function of the wavelength in free space were calculated from these results. The distribution of the longitudinal field was measured by driving the model by a capacitative projection at one end-wall, the detector head at the other end-wall having the same capacitative coupling. The absorbing element was moved along the axis of the model by a system of rollers and thread. The absorbing element is described; its anisotropy had the values $\mu_z/\mu_y = 20$, $\mu_z/\mu_x = 15$ (μ is the absorption coefficient in the given direction). A diagram shows the idealized distribution of the longitudinal field; the possible field distributions for various amplitudes of the first three

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S/535/60/000/125/006/008
E033/E362

9.1300

AUTHORS: Voskresenskiy, D.I. and Granovskaya, R.A.
TITLE: Investigation of a single-start spiral in a circular waveguide
SOURCE: Moscow. Aviatsionnyy institut. Trudy. no. 125. 1960. Elektromagnitnyye zamedlyayushchiye sistemy; metodika izmereniya elektricheskikh kharakteristik. 92 - 97
TEXT: The dispersion properties and coupling impedance of a spiral located in a circular waveguide were investigated by using a resonance model (Fig. 1a). The length of the model was sufficient to obtain different harmonics and fixed-end walls ensured a high Q-factor of the order of 1500. The absorbing element was introduced into the waveguide via apertures and hence the field distribution was obtainable. The end walls created a mirror image giving a spiral of reverse direction and, strictly speaking, the field in the resonance model was not exactly identical to the standing-wave pattern in an infinitely long waveguide. However, the approximation improved with distance from the end walls and, therefore, the coupling impedance and
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EO33/E362

Investigation of

dispersion were measured at points distant from the end walls and with high harmonics. The method and block-schematic were basically as described in other articles of the same symposium. The model had the following dimensions: $R/r_0 = 2$; $a_0/r_0 = 0.143$; $a_0/h = 0.276$. By determining the number of semi-waves at a given resonant frequency and knowing the geometric length of the model, the retardation $\gamma = c/\lambda_z f_p$ (c - velocity of light, f_p - resonant frequency, λ_z - the wavelength of the slow wave) can be calculated. The results of measurement of the retardation are compared graphically with the theoretical results. The difference (about 10%) is explained by the error in the resonance model and by the assumptions of the approximate theory. The coupling impedance was measured by the absorption method. The absorbing element, consisting of a glass rod with a layer of Aqua-dag, was calibrated in coaxial and cylindrical resonators. The results of measurement of the coupling impedance (accuracy about 15%) are shown graphically together with the theoretical curve. The retardation changes only from 9 to 11

Card 2/3

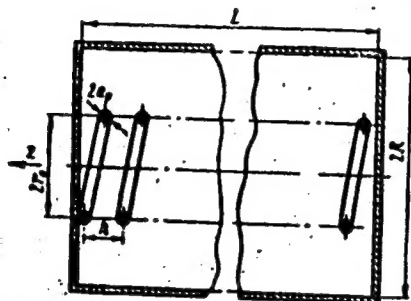
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S/535/60/000/125/006/008
E033/E362

over a wide frequency band but the coupling impedance falls from hundreds of ohms at low frequencies to a few ohms at high frequencies.

There are 4 figures and 3 Soviet-bloc references.

Fig. 1:



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E033/E362

9.4230

AUTHORS: Voskresenskiy, D.I. and Granovskaya, R.A.

TITLE: Investigation of a slow-wave system of the "spiral-channel" type

SOURCE: Moscow. Aviatsionnyy institut. Trudy. no. 125. 1960. Elektromagnitnyye zamedlyayushchiye sistemy; metodika izmereniya elektricheskikh kharakteristik. 98 - 103

TEXT: Results of measuring the retardation and coupling impedance of a slow-wave system of the spiral-channel type are given in this article. These values were measured on a resonance model (Fig. 2), consisting of a section of the spiral, short-circuited by metallic end-walls. A standing wave could be excited in the model by a finger through an aperture in one end-wall and the resonance-indicator was coupled to the model by a similar finger in the other end-wall. A number of radial and azimuthal apertures in the end-walls permitted the field-distribution to be investigated. Obtaining the dispersion curve was complicated by side resonances and by different types of waves which could be excited in the model. The number of slow
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semi-waves m was determined by moving a cylindrical element, coated with an absorbing layer of Aqua-dag, along the z (longitudinal) axis of the system. The absorption method was used to obtain the value of the coupling impedance. The absorbing element, a small phenopolystyrol cylinder with its side surface coated with Aqua-dag was calibrated in a standard cylindrical resonator. The experimental dispersion curve is produced and compared with the curve obtained from a dispersion equation, previously derived by the present authors (Ref. 4 - Izvestiya VUZov MVO SSSR, razdel Radiotekhnika, no. 3, 1959). For values of the retardation factor from 4 to 7, the difference between theoretical and experimental results does not exceed 10%. The group velocity was found from the dispersion curves. The curve of measured coupling impedance values is compared with a theoretical curve, calculated by a formula previously obtained by the authors (Ref. 4). In the region of small retardation values, the theoretical and experimental curves are very close to each other but differ considerably as the retardation γ increases. This difference is explained by the errors in the experiment due to inhomogeneity of the field along the length

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Investigation of

of the absorbing element and by the assumptions of the theory. The coupling impedance falls from a high value to less than 10 ohms for $\gamma = 0$. A feature of the "spiral-channel" is the variation in the field distribution with increase of retardation and this makes the passage of the electron beam down the central channel inconvenient. The electron beam should be passed through special orifices in the walls of the channel located at anti-nodes of the electric field but as these anti-nodes will be displaced with change of frequency, the interaction between the beam and the field will be considerably reduced with change in frequency. The extent of this displacement was investigated and a curve showing the dependence of the anti-node position on frequency was plotted. The curves show that above a particular frequency very little further displacement occurs. Therefore, providing the positions of the orifices are correctly selected, effective interaction between the beam and the field can be ensured. There are 6 figures and 4 references: 2 Soviet-bloc and 2 non-Soviet-bloc. The two English-language references mentioned are: Ref. 1 - Lester M. Field - Some

Card 3/4

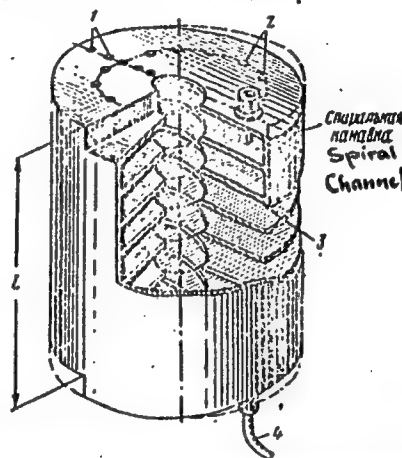
Investigation of

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S/535/60/000/125/007/008
E033/E362

Slow-wave Structures for Travelling-wave Tubes. *PIRE*, January, 1949, pp. 34-40; Ref. 3 - Joseph E. Rowe - A Wideband Structure for High-power Travelling-wave Tubes. *Trans. IRE (Professional Group on Electron Devices)*, December, 1953, pp. 55 - 56.

Fig. 2: - Resonance model.

1, 2 - apertures for investigating
the field-distribution;
3 - Slow-wave system;
4 - cable to indicator.



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GRANOVSKAYA, R., dotsent

Decision of the scientific council of the Radio Engineering Department of the Sergo Ordzhonikidze Institute of Aviation in Moscow.

Izv. vys. ucheb. zav.; radiotekh. 4 no.4:507-508 J1-Ag '61.

(MIRA 14:11)

1. Sekretar' Uchenogo Soveta radiotekhnicheskogo fakul'teta
Moskovskogo aviatsionnogo instituta.

(Radio)

L 11945-65

ASSOCIATION NR: AT4046231

...ing systems for scanning antennas with a radiating surface of axetal configuration
...al arrangement of such systems is complicated considerably in the case
...anning the angular-frequency characteristics of the ... linear

L 11045-65

ACCESSION NR: AT4046231

In connection with the fact that it is difficult to achieve the required dispersion characteristics of the beam-positioning systems, systems with somewhat better characteristics are needed that these characteristics are achieved in the design of the linear arrays, which arise in the remaining portion of the band. The length of the array and the spacing of the elements in the array are the result of the investigation. The investigation shows that the beam-positioning systems of the antenna can be used to improve the characteristics of the direction-finding coaxial line. The investigation shows and

by Moskovskiy aviatsionnyy institut (Moscow Aviation Institute)

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ENCLOSURE

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ENCL: 01

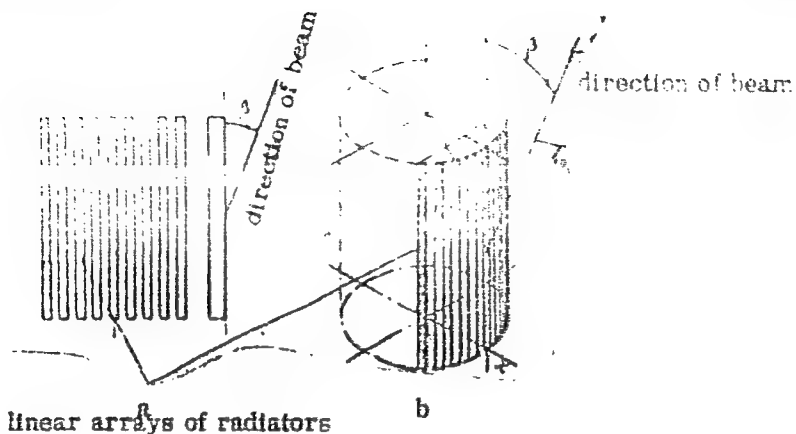


Fig. 1. a) plane two-dimensional array; b) two-dimensional array located on a curved surface. c) plane "fan-shaped" two-dimensional array. d) two-dimensional array on a curved surface.

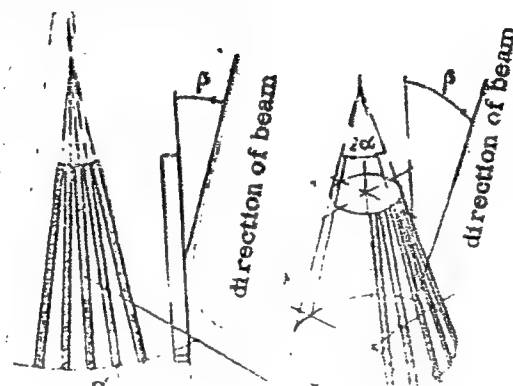
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ENCL: 02

Fig 2 a & b -

a) plane two-dimensional
array; b) two-dimensional
array located on cylindrical
surface; c) plane "fan-
shaped" two-dimensional
array; d) two-dimensional
array located on conical
surface

direction of excitation



BABAYEV, V.I., inzh.; GRANOVSKAYA, R.M., inzh.; BAZHENOVA, N.I., inzh.; DAN'SHINA, N.M., inzh.

Using the industrial method for the sulfonation of alcohols from unsaponifiables II with sulfuric acid. Masl.-zhir.prom. 28 no.8:34-35
Ag '62. (MIRA 17:2)

1. Shebekinskiy kombinat sinteticheskikh zhirnykh kislot i zhirnykh spirtov.

BABAYEV, V.I., inzh.; GRANOVSKAYA, R.M., inzh.; ZHIVOTKOVA, L.V.;
BONDARENKO, I.S.

Removal of suspended matter from neutralized wastes in the
manufacture of synthetic fatty acids. Masl.-zhir. prom. 29
no.3:32-34 Mr '63. (MIRA 16:4)

1. Shebekinskiy kombinat sinteticheskikh zhirnykh kislot i
zhirnykh spirtov.
(Acids, Fatty) (Industrial wastes)

SHKURENKO, P.L., inzh.; BARAYEV, V.I., inzh.; GRANOVSKAYA, R.M., inzh.

Purification of barometric condenser waters. Masl.-zhir.prom. 29
no.1:34-35 Ja '63. (MIRA 16:2).

1. Shebekinskiy kombinat sinteticheskikh zhirnykh kislot i
zhirnykh spirtov.
(Distillation) (Water--Purification)

GRANOVSKAYA, R.M.

Electromagnetic fields of the brain. Trudy Len. ob-va est. 72
no.1:111-115 '61. (MIRA 15:3)
(BRAIN) (ELECTROPHYSIOLOGY)

6-1111-15000 N M
ACCESSION NR: AP4002550

S/0247/63/013/006/1108/1110

AUTHOR: Smetankin, G. N.

TITLE: Third Volga Area Conference of physiologists, biochemists, and pharmacologists

SOURCE: Zhurnal vysshey nervnoy deyatel'nosti, v. 13, no. 6, 1963, 1108-1110

TOPIC TAGS: bionics, closed cybernetic system, neuron modeling, pharmacological stimulant, regeneration process, dibazol, thyroidine, pentoxyl, neuron, cybernetics, central nervous system, biological modeling

ABSTRACT: The Third Volga-Area Conference of physiologists, biochemists, and pharmacologists was held in Gorky in June 1963. One hundred and thirty papers were presented. Experimental results and clinical data were reported on various problems in the physiology, biochemistry, and pharmacology of the central nervous system. Problems concerning the cardiovascular system, respiration, endocrine system, and the digestive system were also discussed. A. N. Malakhov and M. Yu. Ul'yanov

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ACCESSION NR: AP4002550

reported on studies being conducted in the field of bionics and gave an analysis of the methods used in the investigations. V. A. Ganzen and R. M. Granovskaya reported on a radioelectronic device which makes possible the mathematical simulation of neuron properties, using the neuron as a functional unit, and of functions characteristic of interacting neurons. N. P. Sinitsev reported on the stimulating action of vitamins B₁ and B₁₂, and of dibazol, thyroline, pentoxyl, and ATP on the regenerative processes in the myocardium.

ASSOCIATION: none

SUBMITTED: 00

DATE ACQ: 07Jan64

ENCL: 00

SUB CODE: AM

NO REF SOV: 000

OTHER: 000

Card 2/2

GANZEN, V.A.; GRANOVSKAYA, R.M.

Some frequency transformations studied on the models of neurons. Vest. LGU 18 no.21:155-160 '63 (MIRA 16:12)

GRANOVSKAYA, R.M.; GANZEN, V.A.

Conduction of a nervous impulse in the stem and phalangeal
preparation of a sciatic nerve of a frog during excitation by
square pulses. Trudy Len. ob-va est. 74 no. 1:81-84 '63.
(MIRA 17:9)

GRANOVSKAYA, R.M.; GANZEN, V.A.

Role of a motor link in the visual system during the identification
of an object by its outward contour. Vop. psikhol. 11 no.1:66-82
Ja-F '65. (MIRA 18:4)

1. Otdeleniye psikhologii Moskovskogo gosudarstvennogo universiteta
i Vychislitel'nyy tsentr Leningradskogo gosudarstvennogo universiteta.

1101-05 EWT(d)/EED-2/EWP(1) Pq-4/Pg-4/Px-4 INF(c) BB/GG
 101044 101044 101044 101044 101044 101044 101044 101044 101044 101044

1101-05 Granovskaya, R. M.; Ganzen, V. A.; Krivova, G. Ya.

1101-05 Digital-computer simulation of the memorization process in a very simple
 1101-05 1101-05 1101-05 1101-05 1101-05 1101-05 1101-05 1101-05 1101-05 1101-05

1101-05 Leningrad. Universitet. Kafedra vychislitel'noy matematiki i Vychisli-
 1101-05 tsentr. Vychislitel'naya tekhnika i voprosy programirovaniya, no. 3,

1101-05 Nervous system, neuron system, 1101-05

1101-05 A memory is defined in this article as the property of the nervous
 1101-05 system, storing, and recalling information. The memory is a system of
 1101-05 neurons and their connections.

1101-05 During operation, the network considered is in the form of a matrix
 1101-05 of neurons each of which has 10 inputs and 10 outputs. Internal
 1101-05 signals are applied to the inputs and outputs. The signals at the inputs and outputs are at any instant of
 1101-05 time one of two values, zero or 1. An expression is given for the state
 1101-05 of the neuron output at the instant $t + 1$ when a set of signals is applied to

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ACCESSION NR: AT5001654

the system at the instant t (the synapse delay time is used as the unit of time).
Experiments were made with this matrix on the "Mirabil" electronic computer, on
the dependence of the quality of approximation on the number of neurons, on the
number of inputs, the output resolution, and the number of synapses.
The matrix had a tendency to be stable with respect to the number of neurons,
the number of inputs, and the output resolution. The calculated results were
compared with the results obtained by the method of least squares. The results
showed that the matrix method was more reliable than the method of least squares.
The matrix method was also compared with the method of least squares. The results
showed that the matrix method was more reliable than the method of least squares.
The matrix method was also compared with the method of least squares. The results
showed that the matrix method was more reliable than the method of least squares.

ASSOCIATION: Leningradskiy universitet (Leningrad University)

SUBMITTED: 10Jun63

ENCL: 00

SUB CODE: LS, DP

ER REF SOV: 000

OTHER: 003

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EED-2/EWT(d)/T/EWP(1) Pg-4/Pk-4/Po-4/Pq-4 IJP(c) GG/BB

ACCESSION NR: AT5001656

S/3040/64/000/003/0069/0079

AUTHOR: Granovskaya, R. M.; Gauzen, V. A.

TITLE: Algorithm for the recognition of contour images

SOURCE: Leningrad. Universitet. Kafedra vychislitel'noy matematiki i Vychislitel'nyy tsentr. Vychislitel'naya tekhnika i voprosy programmirovaniya, no. 3, 1964, 69-79

TOPIC TAGS: character recognition, reading machine, outline recognition, servo-mechanism

ABSTRACT: The authors describe an algorithm for the recognition of plane figures by their external contour. The system is based on some information concerning the structure and functions of biological systems. It is pointed out that the human biological shape recognition process is similar in some respect to scanning of the contour and results in formation of a system of sequential sensing signals. Human recognition consists of starting out with minimum accuracy, which is increased by using additional attributes until the problem is solved with sufficient accuracy. The algorithm described here employs a varying number of

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ACCESSION NR: AT5001656

attributes, depending on the required recognition accuracy. The method consists in the following: A servomechanism searches for the object in its field of view and tracks the contour of the object (defined as an arbitrary connective region on a plane, bounded by a smooth closed line). The tracing of the contour begins at an arbitrary point and is in a counterclockwise direction, concluding upon returning to the initial point. The response of the servomechanism is proportional to the curvature of the contour at each point. The system is sensitive to changes in the curvature of the contour. Auxiliary attributes may be topological features, the position of the initial point, the orientation of the contour in an external coordinate system, and the properties of the digital code used for data transmission. The number and composition of the attributes employed, as well as the quantization levels, can be different. Examples are presented of recognition of Russian and Latin letters and simple geometrical figures. Tables of codes based on several attributes (up to 3) are presented. Orig. art. has: 3 figures and 6 tables.

ASSOCIATION: Leningradskiy universitet (Leningrad University)

SUBMITTED: 10Jun63

ENCL: 00

SUB CODE: DP

NR REF SOV: 010

OTHER: 001

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L 22876-65 EEC-4/EED-2/EEC(k)-2/ENG(c)/EEC(g)/EWT(d)/EWP(l) Pg-4/Pk-4/Po-4/Pg-4
ACCESSION NR: AT5001657 IJP(c) GG/BB S/3040/64/000/003/0084/0090

AUTHOR: Ganzen, V. A.; Granovskaya, R. M.

TITLE: Apparatus for the calculation and simulation of neurons

SOURCE: Leningrad. Universitet. Kafedra vychislitel'noy matematiki i Vychislitel'nyy tsentr. Vychislitel'naya tekhnika i voprosy programmirovaniya, no. 3, 1964, 84-90

TOPIC TAGS: neuron modeling^{16✓}, central nervous system, neuron threshold, neuron function

ABSTRACT: Unlike most other mathematical models of neurons, in which the neuron is regarded as a logical converter, the apparatus described here makes it possible to simulate neuron operation by taking additional account of the operation of a neuron as a converter of a space-time pulsed code. The apparatus is intended for the investigation of the conversion of such a space-time pulse code in neuron models of different types and under different operating conditions. The principles underlying the construction of the machine were obtained from a representation of the physiological data and structure and function of the neuron, obtained

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ACCESSION NR: AT5001657

by the authors elsewhere (Vestnik LGU, No. 4, 1963). The neuron is regarded as a multiple-pole network with several inputs and one output. The input signals are binary, and the neuron has a threshold which can vary in time. A block diagram of the apparatus is shown in Fig. 1 of the enclosure. The input sequences of stimuli, the law governing the variation of the threshold with time, and the law governing the forgetting of the stimuli are all inserted by means of a punched tape through a reading unit or by means of a keyboard. The different units of the apparatus are described. An approximate calculation shows that the apparatus can be investigated for about 10^7 different typical conditions. It is claimed that the apparatus will help decide which functions of the central nervous system are determined by the structure and operation of individual neurons, and which are determined by the neuron network as a whole. No special programming is required, and the results are presented in a form similar to an ordinary oscillogram.

References: 3 figures and 2 formulas.

ASSOCIATION: Leningradskiy universitet (Leningrad University)

SUBMITTED: 23Feb63

ENCL: 01

SUB CODE: LS, DP

NR REF SOV: 002

OTHER: 008

Card 2/3

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ACCESSION NR: AT5001657

ENCLOSURE: 01

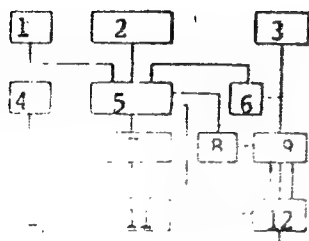


Fig. 1. Block diagram of set-up.

1 - Keyboard, 2 - reading unit, 3 - printer block,
4 - readout system, 5 - input register, 6 - delay
line, 7 - memory unit, 8 - threshold variation unit,
9 - threshold detector, 10 - weight variation unit,
11 - adder, 12 - control unit.

Card 3/3

GRANOVSKAYA, R.M.; GANZEN, V.A.

Mechanisms of a passive inhibition of the neuron. Vest. LGU
20 no.3:142-145 '65. (MIRA 18:2)

2 61610-65 ENT(d)/EED-2/EMP(1) Pq-4/Pg-4/Pk-4 LIP(c) BB/CG/GS/JXT(BF)
 REFERENCE NR: AT5014726 UR/0000/65/000/000/0179/0186

AUTHOR: Granovskaya, R. M., Ganzen, V. A.

TITLE: One of the possible network models possessing an associative memory 160

operativnyye i postoyannyye zapominavushcheye ustroystva (Rapid and nonvolatile memory devices). Leningrad, Izd-vo Energiya, 1965, 179 p.

KEYWORDS: associative memory model, network model memory, plastic neuron network memory, addressless memory model

ABSTRACT: Although the principles of associative memories have long been known to scientists (see, e.g., Yu. L. Samarin, Ocherki psikhologii uma, Ed. APN, 1962), the principles on which such memories are based are still obscure. The present paper introduces a model of associative memory based on the properties of an associative network. The model is described in terms of a set of equations and the network operations during the recording of words, reading of words, time associations created between words in two alphabets, and the time associations between words of the same alphabet. Orig. art. has: 10 formulas and 3 figures.

Card 1/2

L 61640-65

ACCESSION NR: AT5014726

ASSOCIATION: None

SUBMITTED: 20Jan65

ENCL: 00

SUB CODE: DP

NO REF SOV: 004

OTHER: 003

Card

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L 04890-67 EWT(d)/EWT(1) IJP(c) GG/BB/JET(BF)/GD

ACC NR: AT6022678

SOURCE CODE: UR/0000/66/000/000/0102/0107

AUTHOR: Ganzen, V. A.; Granovskaya, R. M.

ORG: none

TITLE: A self-instructing system for the recognition of a certain class of visual patterns

SOURCE: Moscow, Institut avtomatiki i telemekhaniki. Samoobuchayushchiyesya avtomaticheskiye sistemy (Self-instructing automatic systems). Moscow, Izd-vo Nauka, 1966, 102-107

TOPIC TAGS: pattern recognition, character recognition, self organizing system, optic scanning, reading machine

ABSTRACT: A self-instructing system which recognizes objects on the basis of their external configuration is described. The system is based on certain information regarding the structure and functions of biological analyzer systems. The role of the external configuration of objects in the recognition process is analyzed and is shown to involve an adaptation process as one of the physiological mechanisms essential to the execution of this operation by the human organism. In the system considered, fundamentally a letter-recognition servosystem, the primary attributes playing an secondary role in those cases, for example, in which figures consisting of un-

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ACC NR: AT6022678

joined segments are to be distinguished (such as the Cyrillic letters very bl, yo ë, and i kratkoye ŭ). A block-diagram of such a system is analyzed and its operation is explained. The basic principle employed is one of servo scanning tied to a system of natural coordinates. A brief description is given of the machine code and the technique of initial teaching. Examples of the recognition of objects of certain sets (printed letters of the Latin and Russian alphabets, digits, and geometric figures) are presented, and on this basis the properties of the system are illustrated. It is shown that through the use of certain physiological data a system can be developed capable of performing a part of the recognition functions of man. Orig. art. has: 2 tables and 3 figures.

SUB CODE: 06,09/ SUBM DATE: 02Mar66/ ORIG REF: 007

Card 2/2

08830-57 EWP(d)/EWP(1) TOP(C) DD/NO/001001
ACC NR: AT6022619 (A) SOURCE CODE: UR/3040/65/000/004/0084/0099
#3
1/1

AUTHOR: Ganzen, V. A.; Granovskaya, R. M.

ORG: none

TITLE: Several problems in the processing and storage of information on line drawings

SOURCE: Leningrad. Universitet. Kafedra vychislitel'noy matematiki i Vychislitel'nyy tsentr. Vychislitel'naya tekhnika i voprosy programmirovaniya, no. 4, 1965, 84-99

TOPIC TAGS: recognition process, information processing, information storage, nervous system

ABSTRACT: A method for processing information derived from the identification of objects by their external contours is described. The ability of a memory system to classify objects is studied on the basis of principles derived from the study of the human nervous system: 1) the reaction to a change in any parameter of an input signal which may, in special cases, be taken to be proportional to the time derivative of the signal; 2) the system is capable of integrating parameter changes in time and its reaction is proportional to the summation so derived; 3) there is a threshold value such that the reaction at the system's output differs according to whether the signal is above or below the threshold value. The stages of contour recognition are described through the expression of the contour in the form of a code based on quantities assign-

Card 1/2

, L 08830-67

ACC NR: AT6022619

ed to forms of sections of the contour. Contour features, hence their codes, are distinguished according to properties of invariance with respect to certain transformations as primary or secondary. Resulting code trees for matching (indexing) input contour codes with memory codes (recognition) are discussed with respect to threshold conditions and summation operations. Orig. art. has: 22 formulas, 5 figures.

SUB CODE: 09,12,06 / SUBM DATE: none / ORIG REF: 003 / OTH REF: 002

Card 2/2 nst

KAZIMIRSKIY, Ya.M., starshiy nauchnyy sotrudnik; ZVEREVA, T.A., starshiy
nauchnyy sotrudnik; GRANOVSKAYA, R.Ya., mladshiy nauchnyy sotrudnik;
PYATIGORSKAYA, T.I., starshiy nauchnyy sotrudnik

Technical and economic effectiveness of the steam-heating, and
mechanical methods of preparing potatoes for drying. Trudy VNIKOP
no.9:26-52 '59. (MIRA 14:1)

(Potatoes—Drying)

MOROZENSKIY, L.M.; GRANOVSKAYA, Ya.

Processing of dried squash and cauliflower. Kons. i ov. prom.
13 no.6:26-29 Je '58. (MIRA 11:5)

1.Vsesoyuznyy nauchno-issledovatel'skiy institut konservnoy i
ovoshchesushil'noy promyshlennosti.
(Squash--Drying) (Cauliflower--Drying)

GRANOVSKAYA, R.Ya.

Determining the color of dried cabbage during storage. Kons.i ov.prom.
14 no.2:38-39 F '59. (MIRA 12:3)

1. Tsentral'nyy nauchno-issledovatel'skiy institut konservnoy i
ovoshchesushil'noy promyshlennosti.
(Cabbage) (Colorimetry)

BUGROVA, L.N.; GRANOVSKAYA, R.Ya.

Improved method for determining the ascorbic acid content of
food products. Kons. i ov. prom. 14 no.6:43-44 Je '59.
(MIRA 12:8)

(Food--Analysis) (Ascorbic acid)

MOROZENSKIY, L.M.; GRANOVSKAYA, R.Ya.

Testing of the steam band blancher developed by Shcheklin at
the Dmitriyevsk Dried Vegetable Plant. Kons.1 ov.prom. 18
no.5:8-12 My '63. (MIRA 16:4)

1. TSentral'nyy nauchno-issledovatel'skiy institut konservnoy i
ovoshchesushil'noy promyshlennosti.
(Makeyevka--Canning industry--Equipment and supplies)

GRANOVSKAYA, Sh.G. and CHERNOGOROV, I.A.

"Results of Sleep Therapy in Acute Insufficiency of Coronary Circulation."
Klin.Med.,30, no.1, 1952/

Monthly List of Russian Accessions, Library of Congress, May '52, Unclassified.

GRANOVSKAYA, S. Ye.

Granovskaya, S. Ye. - "Use of hawthorn for high blood pressure diseases," Vracheb. delo, 1949, No. 2, columns 139-44

SO: U-3566, 15 March 53, (Letopis 'Zhurnal 'nykh Statey, No. 14, 1949).

GRANOVSKAYA, S.Ye., kandidat meditsinskikh nauk

Studying bromine metabolism in patients with peptic ulcer. Vrach.
delo no.6:649-651 Je '57. (MLRA 10:8)

1. Gospiatal'naya terapevticheskaya klinika (zav. - prof. P.I.Sharlay)
Khar'kovskogo meditsinskogo instituta
(PEPTIC ULCER) (BROMINE METABOLISM)

SHARLAY, R.I., prof.; POCHETSOV, V.G., kand.med.nauk; GRANOVSKAYA, S.Ye.,
kand.med.nauk; KOZLOVA, O.M.

On the effect of hexonium in seizures of renal colic. Sov.med. 23
no.9:114-116 S '59. (MIRA 13:1)

1. Iz kafedry gosspital'noy terapii lechebnogo fakul'teta (sav. - prof.
R.I. Sharlay) Khar'kovskogo meditsinskogo instituta (dir. - dotsent
N.F. Kononenko) i klinicheskoy bol'nitsy No.27 (glavnyy vrach A.G.
Chipyzhenko).

(URINARY CALCULI ther.)

(AUTONOMIC DRUGS ther.)

GRANOVSKAYA, S.Ye., kand.med.nauk

Treatment of endarteritis obliterans into hexonium. Trudy Khar.
med. inst. no.52:91-95 '59. (MIRA 14:11)
(ARTERIES--DISEASES) (HEXONIUM)

GRANOVSKAYA, S.Ye.; kand.med.nauk

Mechanism of hexonium action in ulcer cases. Vrach.delo no 3:
140-141 Mr '63. (MIRA 16:4)

1. Kafedra gospi'tal'noy terapii (zav. - prof. R.I.Sharlay
[deceased]) lechebnogo fakul'teta Khar'kovskogo meditsinskogo
instituta.
(HEXONIUM) (ALIMENTARY CANAL--ULCERS)

GRANOVSKAYA, S.Ye., kand. med. nauk

Use of hexonium in renal colic. Sov. med. 27 no.3:126-127 Mr '64.
(MIRA 17:11)

1. Kafedra gosspital'noy terapii lechebnogo fakul'teta (zav. - prof.
L.T. Malaya) Khar'kovskogo meditsinskogo instituta.

GRANOVSKAYA, V. SH.

IC

19079

PA 19079

USSR/Chemistry - Ammonia Synthesis

May 51

"Change of the Reaction Order in Ammonia Synthesis.

1. Kinetics of the Reaction Over an Osmium Catalyst," S. I. Kiperan, V. Sh. Granovskaya, Lab Chem Kinetics, Moscow, Phys Chem Inst imeni L. Ya. Karpov

"Zhur Fiz Khim" Vol XXV, No 5, pp 557-564

Studied kinetics of NH_3 synthesis over an Os catalyst experimentally. At 550-600 the kinetics correspond to M. I. Tyankin and V. M. Pyzhev's eq ("Zhur Fiz Khim" Vol XIII, 851, 1939) with $\alpha = 0.5$. Energy of activation of NH_3 decompn in this range is 41,600 cal. On removal from equil conditions (brought about by lowering the temp), the

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USSR/Chemistry - Ammonia Synthesis (Contd) May 51

order of the reaction changes and can then be expressed by $\omega = k_1 P_N^2$ where ω is the rate of reaction. Activation energy in the range 400-4500 is 39,200 cal. At 5000 the kinetics change as shown by eqs in the text. Results confirm theoretical conclusions drawn in prior work.

GRANOVSKAYA, V. SH.

IA 24219

USSR/Chemistry - Synthesis of Ammonia Nov 52

"The Change in the Reaction Order in the Synthesis of Ammonia: II. Research into the Kinetics of the Reaction on an Iron Catalyst, at a Point Removed From Equilibrium," S. I. Kiperman and V. Sh. Granovskaya, Physicochem Inst imeni L. Ya. Karpov, Moscow

"Zhur Fiz Khim" Vol 26, No 11, pp 1615-1618

The authors obtained data regarding the kinetics of ammonia synthesis on two specimens of Fe catalyst at atm pressure. If there is a significant

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departure from equil, when there is a small vol of ammonia gas, the order of the reaction changes. Where the yields of ammonia are relatively small, the kinetics of the reaction are represented by the eq, $W = k_1 P_{N_2}$, that is, the rate of the reaction does not depend on the partial pressures of H and ammonia as is the case on an Os catalyst. Author says that the change in the sequence of the reaction of ammonia synthesis, caused by the change in the degree to which the surface of the catalyst is covered with N confirms previously developed ideas.

24219

GRANOVSKAYA-TSVETKOVA, A.M.

Mauriac's syndrome in children. Trudy TSIU 78:77-87 '65.

(MIRA 18:9)

1. Kafedra endokrinologii (zav. prof. Ye.A. Vasyukova) Tsentral'nogo instituta usovershenstvovaniya vrachey.

GRANOVSKY, B. L.

PA 4T95

USSR/Mercury
Lamps, arc

1945

"Characteristic Electric Oscillations of Low-pressure
Mercury Arcs," B. L. Granovsky and L. N. Bykhovskaya
4 pp

"CR Acad Sci" Vol XLIX, No 5

Study of characteristic natural electric oscillations
of mercury arcs at vapor pressures of 0.2 to 5.0-mm
Hg, to clarify the nature of undamped electric os-
cillations arising in circuits having neither capa-
city nor inductance.

4T95

GRANOVSKY, B. L.

PA 4T99

USSR/Vacuum Tubes

1945

Oscillations - damping
Discharges, electric

"Generation of High-power Electric Oscillations by
Low-pressure Discharge," B. L. Granovsky, T. A.
Suetin, 4 pp

"CR Acad Sci" Vol XLIX, No 6

Development of a dielectric diaphragm to separate the
anode region from the cathode region in discharge
tubes permitting the authors to obtain undamped elec-
tric oscillations whose power is limited only by
heat loss from the tube.

4T99

GRANOVSKIY, B. L.; BAUM, V. A.; BUDRIN, D. V; VASHENKO, A. I.; GLINKOV, M. A.; KITAY, B. I.
KUZMIN, M. A.; MIKHAYLENKO, A. Ya.; NAZAROV, I. S.; PLOTNIKOV, L. A.; SEMIKIN, I. D.;
TAYS, N. U.; TROIB, S. G.

Metallurgicheskie Pechi (Metallurgical Furnaces), 975 p., 1951.

GRANOVSKIY, B. L. (Engr.); KRAPUCHIN, V. V.; MIKHAYLENKO, A. Ya. (Docent)

"Furnaces for the Plants of Nonferrous Metallurgy," from the book
Metallurgical Furnaces (Metallurgicheskiye Pechi) Metallurgizdat, 1951.

BEREGOVSKIY, V.Ye.; VASILENKO, M.I.; VELIER, R.L.; VERBLOVSKIY, A.M.;
VERNER, B.F.; VOYDALOVSKAYA, Ye.N.; VOL'SKIY, A.N.; GLAZKOVSKIY, A.A.;
~~GRANOVSKIY, B.L.~~; GREYVER, N.S.; GUDIMA, N.V.; DOLGOPOLOVA, V.I.;
KARCHEVSKIY, V.A.; KOVACHEVA, Ye.B.; KUDRYAVTSEV, P.S.; LEBEDEV, A.K.;
LISOVSKIY, D.I.; LIKHNITSKAYA, Z.P.; MATVEYEV, N.I.; MEL'NITSKIY, A.N.;
MIRONOV, A.A.; MIKHAYEVA, A.A.; MURACH, N.N.; OKUB', A.B.; OL'KHOV, N.P.;
OSIPOVA, T.B.; PAVLOV, V.P.; ROTINYAN, A.L.; SAZHIN, N.P.; SEVRYUKOV, N.N.;
SIDOROV, P.M.; SOBOL', S.I.; KHEYFETS, V.L.; TSEYNER, V.M.;
SHAKHNAZAROV, A.K.; SHEYN, Ya.P.; SHEREMET'YEV, S.D.; SHERMAN, B.P.;
SHISHKIN, N.N.; SHLOPOV, A.P.

Georgii Ivanovich Blinov. TSvet.met. 28 no.6:62 N-D '55.

(MIRA 10:11)

(Blinov, Georgii Ivanovich, 1911-1955)

GRANOVSKIY, B.L.; DIYEV, N.P.; ZUBAREV, V.I.; KARGHEVSKIY, V.A.; KLIUSHIN, D.N.;
MAKOVSKIY, G.M.; MIRONOV, A.A.; OL'KHOV, N.P.; PARFANOVICH, B.V.;
USHAKOV, K.I.; SHAKHNAZAROV, A.K.

Electric smelting for matte in copper metallurgy; a reply to
L.M.Gazarian. TSvet.met. 28 no.1:33-41 Ja-F '55. (MIRA 10:10)
(Copper--Electrometallurgy) (Gazarian, L.M.)

MITKALINYY, Vsevolod Ivanovich; KRAFUKHIN, Vsevolod Valer'yanovich;
VASHCHENKO, Aleksandr Ivanovich; GRANOVSKIY, Boris L'vovich;
GLINKOV, M.A., prof., doktor tekhn. nauk, red.

[Metallurgical furnaces; an atlas] Metallurgicheskie pechi;
atlas. Izd.2., perer. Moskva, Metallurgiya, 1964. 219 p.
____[Data for the atlas "Metallurgical furnaces"] K atlasu
"Metallurgicheskie pechi." 45 p. (MIRA 17:9)

GRANOVSKIY, B.L.

Introduce the use of natural gas in nonferrous metallurgy. TSvet.met.
38 no.7:24-28 J1 '65. (MIRA 28:8)

GRANOVSKIY, B. S., Cand Tech Sci -- (diss) "Selection of type and ^{principles} ~~basis~~
of ^{design} ~~evaluation~~ of sinking lifting ^{devices} ~~installations~~." Mos, 1958. 14 pp
(Min of Higher Education USSR, Mos Mining Inst im I. V. Stalin), 120
copies (KL, 17-58, 108)

-35-

GRANOVSKIY, B.S., inzh.; MIRSKIY, M.I., inzh.

Multirope suspension of mining equipment. Shakht. stroi.
no.6:17-19 '58.

(MIRA 11:6)

(Shaft sinking) (Mine hoisting) (Winches)

GRANOVSKIY, B.S., kand. tekhn. nauk; FURMAN, V.B., inzh.; VULIS, N.L., inzh.

Built-in power cable for supplying power and regulating the operation of borer mechanisms in core drilling equipment for shafts. Shakht. stroi. 8 no.10;16-19 O '64. (MIRA 17:12)

1. Tsentral'nyy nauchno-issledovatel'skiy i proyektno-konstruktorskiy institut podzemnogo i shakhtnogo stroitel'stva.

(N) L 12911-66 EWT(m)/EWP(v)/T/EWP(t)/EWP(k)/EWP(b)/EWA(c) JD/HM

ACC NR: AP6000953 SOURCE CODE: UR/0286/65/000/022/0040/0040

AUTHORS: ^{44,55}Yermanok, Ye. Z.; ^{44,55}Rodin, I. Z.; ^{44,55}Shuvarikov, V. M.; ^{44,55}Granovskiy, B. T.

ORG: none

TITLE: A method for contact arc welding of T-joints. Class 21, No. 176336 ⁴⁴B

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 22, 1965, 40

TOPIC TAGS: welding, welding electrode, welding equipment, welding technology, arc welding

ABSTRACT: This Author Certificate presents a method for arc welding T-joints, as between rods and plates. To facilitate the process and to improve the quality of the welded joint, the heading is produced in the course of welding with the help of an electrode provided with a groove.

SUB CODE: 13/ SUBM DATE: 15Jun63

Card 1/1 HW UDC: 621.791..762.1

L 16194-63

EWI(1)/EWG(k)/BDS/ES(w)-2--AFFTC/ASD/ESD-3/AFWL/IJP(C)/

SSD--Pz-4/Pi-4/Pab-4/Po-4--AT

8/0058/63/000/006/D102/D102

ACCESSION NR: AR3005160

SOURCE: RZh. Fizika, Abs. 6 D694

AUTHORS: Artamonov, G. P.; Granovskiy, E. I.; Koka, P. A.

TITLE: Plasmatron - high-temperature source of spectrum excitation

CITED SOURCE: Tr. Kazakhsk. n.-i in-ta mineral'n. sy'r'ya, vy*p. 2, 1960, 285-294

TOPIC TAGS: Plasmatron, arc channel, spectrum excitation, argon, nitrogen, carbon dioxide

TRANSLATION: The operating principle and the construction of a plasmatron and of a device for introduction of a solution in a plasma jet are described. The connection between the diameter of the arc channel and the parameters that determine this diameter (absolute pressure of the supplied liquid, centrifugal pressure of the rotating liquid, or gas, pressure on the internal surface of the channel, density of liquid or gas, velocity of the liquid at the inlet and on the surface of the channel) is made more precise. It is established that the complex profile of the angular velocity of the rotating liquid, chosen for the calculations, gives

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L 16194-63

ACCESSION NR: AR3005160

the best agreement with experiment. Ar, N₂, and CO₂ were used for the cooling and compression of the arc, and CO₂ was used to pulverize the solution. It was found that the best gas for stable operation of the plasmatron is Ar at 0.4--0.6 atmospheres for an arc current 17--25 amperes. A tentative conclusion is reached that the results of analyses made with the aid of a plasmatron display good reproducibility. E. Azizov.

DATE ACQ: 15Jul63

SUB CODE: PH

ENCL: 00

Card 2/2

GRANOVSKIY, E.I.

Use of the plasma light source for the spectrochemical
analysis of mineral raw materials. Zav. lab. 31 no.8:
962-965 '65. (MIRA 18:9)

1. Kazakhskiy nauchno-issledovatel'skiy institut mineral'nogo
syr'ya.

BOCHAROV, Grigoriy Grigor'yevich; GRANOVSKIY, G., red.

[Calculating the cost of industrial production] Kal'-
kulirovanie sebestoimosti promyshlennoi produktsii.
Moskva, Finansy, 1964. 162 p. (MIRA 17:11)

GRANOVSKIY, GERBERT IVANOVICH.

Fasonnye reztsy. Moskva, Mashgiz, 1947. 159 p. illus.

Forming tools.

DLC: TJ1230.G69

SO: Manufacturing and Mechanical Engineering in the Soviet Union, Library
of Congress, 1953.

GRANOVSKIY, GERBERT IVANOVICH.

Kinematika rezaniia. Moskva, Mashgiz, 1948. 199 p. illus.

DLC: TJ1230.G67

(Kinematics of cutting.)

SO: Manufacturing and Mechanical Engineering in the Soviet Union, Library of Congress, 1953.

GRANOVSKIY, G.I.

Metallorzhushchii instrument
(Metalcutting tool). Moskva, Mashgiz, 1952. 278 p.

SO: Monthly List of Russian Accessions, Vol. 6, No. 1, April 1953

GRANOVSKIY, G. I.

PHASE I TREASURE ISLAND BIBLIOGRAPHICAL REPORT AID 747 - I

BOOK

Call No.: AF657796

Author: GRANOVSKIY, G. I., Dr. of Tech. Sci., Prof.

Full Title: METAL-CUTTING TOOLS: DESIGN AND USE HANDBOOK

2nd ed., rev. and enlarged

Transliterated Title: Metallorezhushchiy instrument: konstruktsiya
i ekspluatatsiya, spravochnoye posobiye.
Izd. 2-e, isprav. i dopol.

PUBLISHING DATA

Originating Agency: None

Publishing House: State Scientific and Technical Publishing House
of Machine-Building Literature (MASHGIZ)

Date: 1954

No. pp.: 315

No. of copies: 20,000

Editorial Staff: Gliner, B. M., Eng. - Editor

Kovan, V. M., Dr. of Tech. Sci., Prof. - Appraiser

Karganov, V. G., Eng. - Editor of Graphic Data

PURPOSE: Designed for engineers, machinist and foremen in the metal-
working industry, this book may also be used as a textbook by
students in technical schools.

TEXT DATA

Coverage: This book describes the design, construction and use of
metal-cutting tools for boring, drilling, broaching, milling,
reaming, thread-cutting, and drawing and gear-cutting machines
and turret lathes, both automatic and semi-automatic, regular and

1/2

Metallorazhushchiy instrument: konstruktsiya i
ekspluatatsiya, spravochnoye posobiye. Izd. 2-e,
isprav. 1 dopol.

AID 747 - I

high-speed machines. It provides fundamental information on various types of cutting tools, their characteristics, materials, geometrical form, use and ways of cutting and their wear and tear. Interchangeable parts, machines for sharpening tools, and the various dynamometers for measuring the cutting force exerted by metal tools are also discussed. This second edition of the book is supplemented with description of the newest methods used in machining metal parts. The latest designs of cutting tools for 'power cutting and high speed' cutting, developed by the scientific research institutes and individuals (e.g., Kolesov, V. L.) are added. The text is filled with drawings of cutting tools and their parts. There are 276 tables in the book and a great number of OST and GOST standards on cutters and the materials used for their construction.

No. of References: 93, Russian, 1936-1954 (with two sources dated 1870 and 1893).

Facilities: All-Union Scientific and Research Institute (VNIIT),
and the Scientific Research Bureau of Technical Standards
(NIBTN).

2/2

GRANOVSKIY, G.I.

GRANOVSKIY, G.I.; GRUDOV, P.P.; KRIVOUKHOV, V.A.; LARIN, M.N.; MALKIN,
~~A.Ya.~~, TIKHONOV, A.Ya., tekhnicheskiy redaktor

[Metal cutting] Rezanie metallov. Pod red. V.A.Krivoukhova. Moskva,
Gos. nauchno-tekhn. izd-vo mashinostroit. lit-ry, 1954. 472 p.
(Metal cutting) (MLRA 8:4)

GRANOVSKIY, G. I., ED.

N/5
662.339
.G721

Rezaniye Metallov I Instrument; Sbornik Statey (Cutting of Metals and Instruments; Col-
lection of Articles) Moskva, Mashgiz, 1955.

173 P. Illus., Diagr., Tables.

At Head of Title: Moscow. Vyssheye Tekhnicheskoye Uchilishche.

Includes Bibliographies.

GRANOVSKIY, G.I., professor, doktor tekhnicheskikh nauk, redaktor; BRODSKIY, M.G., inzhener, redaktor; BALANDIN, A.F., inzhener, redaktor izdatel'stva; SHMEL'KINA, S.I., tekhnicheskiiy redaktor

[Design of cutting tools] Konstruirovaniye rezhushchego instrumenta.
Pod red. G.I.Granovskogo. Moskva, Gos. nauchno-tekhn. izd-vo mashinostroit. lit-ry, 1956. 141 p. (MLRA 9:9)

1. Moscow. Vsesoyuznyy nauchno-issledovatel'skiy instrumental'nyy institut.
(Cutting tools)

GRANOVSKIY, G.I.
 ANTIPOV, K.F., inzhener; BALAKSHIN, B.S., doktor tekhnicheskikh nauk, professor; BARYLOV, G.I., inzhener; BEYZEL'MAN, R.D., inzhener; BERDICHEVSKIY, Ya.G., inzhener; BOBKOV, A.A., inzhener, KALININ, M.A., kandidat tekhnicheskikh nauk; KOVAN, V.M., doktor tekhnicheskikh nauk, professor; KORSANOV, V.S., doktor tekhnicheskikh nauk; KOSILOVA, A.G., kandidat tekhnicheskikh nauk; KUDRYAVTSEV, N.T., doktor khimicheskikh nauk, professor; KURYSHEVA, Ye.S., inzhener LAKHTIN, Yu.M., doktor tekhnicheskikh nauk, professor; NAYERMAN, M.S., inzhener; NOVKOV, M.P., kandidat tekhnicheskikh nauk; PARTYSKIY, M.S., inzhener; PEREPONOV, M.N., inzhener, POPILOV, L.Ya. inzhener; POPOV, V.A., kandidat tekhnicheskikh nauk; SAVERIN, M.M. doktor tekhnicheskikh nauk, professor; SASOV, V.V., kandidat tekhnicheskikh nauk; SATEL', E.A., doktor tekhnicheskikh nauk, professor; SOKOLOVSKIY, A.P., doktor tekhnicheskikh nauk, professor, (deceased) STANKEVICH, V.G., inzhener; FRUMIN, Yu.L., inzhener; KHRAMOY, M.I., inzhener, TSEYTLIN, L.B., inzhener; SHUKHOV, Yu.V., kandidat tekhnicheskikh nauk; BABKIN, S.I., kandidat tekhnicheskikh nauk; VOLKOV, S.I., kandidat tekhnicheskikh nauk; GORODETSKIY, I.Ye., doktor tekhnicheskikh nauk, professor; GOROSHKIN, A.K., inzhener; DOSCHATOV, V.V., kandidat tekhnicheskikh nauk; ZAMALIN, V.S., inzhener; ISAYEV, A.I., doktor tekhnicheskikh nauk, professor; KEDROV, S.M., kandidat tekhnicheskikh nauk; MALOV, A.N., kandidat tekhnicheskikh nauk; MARDANYAN, M.Ye. inzhener; PANCHENKO, K.P., kandidat tekhnicheskikh nauk; SEKRETEV, D.M., inzhener; STAYEV, K.P., kandidat tekhnicheskikh nauk; SYROVATCHENKO, P.V., inzhener; TAURIN, G.E., inzhener; EL'YASHEVA, M.A. kandidat tekhnicheskikh nauk,

(Continued on next card)

ANTIPOV, K.F. ---(continued) Card 2.

GRANOVSKIY, G.I., redaktor; DRUGA, V.V., redaktor; DRUGA, V.V., redaktor; CHAIKIN, D.V., redaktor; CHAIKIN, D.V., redaktor; CHAIKIN, D.V., redaktor [deceased]; SOKOLOVA, T.W., tor. [deceased]

[Machine builder's manual] Sprm. ...
v dnykh tomakh, red.novet V.M. ...
i dr. Moskva, Gos.mashino-str...
Vol. 1. (Pod red. A.G.Kosilova) ...
Makluz, 1960. 534 p.

GRANOVSKIY, G.I., prof., doktor tekhn.nauk; BUSHUYEV, S.M., tokar'-
skorostnik; CHUDINOV.; BYKOV, P.B., tokar', deputat Verkhovnogo
Soveta SSSR; YEMEL'YANOV, L.V.

Publishing the first issue of "Mashinostroitel' ". Mashinostroitel'
no.1:44 N '56. (MIRA 12:1)

1. Avtozavod im. Likhacheva (for Bushuyev). 2. Glavnyy inzhener
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(Journalism, Technical)

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ANTIPOV, K.F., inzh.; BALAKSHIN, B.S., prof., doktor tekhn.nauk; BARYLOV, G.I., inzh.; BEYZEL'MAN, R.D., inzh.; BERDICHEVSKIY, Ya.G., inzh.; BOBKOV, A.A., inzh.; KALININ, M.A., kand.tekhn.nauk; KOVAN, V.M., prof., doktor tekhn.nauk; KORSAKOV, V.S., doktor tekhn.nauk; KOSILOVA, A.G., kand.tekhn.nauk; KUDRYAVTSEV, N.T., prof., doktor khim.nauk; KURYSEVA, Ye.S., inzh.; LAKHTIN, Yu.M., prof., doktor tekhn.nauk; NAYKMAN, M.S., inzh.; NOVIKOV, M.P., kand.tekhn.nauk; PARIYSKIY, M.S., inzh.; PEREPONOV, M.N., inzh.; POPILOV, L.Ya., inzh.; POPOV, V.A., kand.tekhn.nauk; SAVERIN, M.M., prof., doktor tekhn.nauk; SASOV, V.V., kand.tekhn.nauk; SATEL', E.A., prof., doktor tekhn.nauk; SOKOLOVSKIY, A.P., prof., doktor tekhn.nauk [deceased]; STANKEVICH, V.G., inzh.; FRUMIN, Yu.L., inzh.; KHRAMOY, M.I., inzh.; TSEYTLIN, L.B., inzh.; SHUKHOV, Yu.V., kand.tekhn.nauk; MARKUS, M.Ye., inzh., red. [deceased]; GRANOVSKIY, G.I., red.; DEM'YANYUK, P.S., red.; ZUBOK, V.N., red.; MALOV, A.N., red.; NOVIKOV, M.P., red.; CHARNKO, D.V., red.; KARGANOV, V.G., inzh., red. graficheskikh rabot; SOKOLOVA, T.F., tekhn.red.

[Manual of a machinery designer and constructor; in two volumes]
Spravochnik tekhnologa-mashinostroitelia; v dvukh tomakh. Glav. red. V.M.Kovan. Chleny red.soveta B.S.Balakshin i dr. Moskva, Gos.nauchno-tekhn.izd-vo mashinostroit.lit-ry. Vol.1. Pod red. A.G.Kosilovoi. 1958. 660 p. (MIRA 13:1)
(Mechanical engineering--Handbooks, manuals, etc.)

MOLOTOK, A.V.; DMITRIYEV, A.I.; GORBATENKO, A.I.; SHAROYAN-SARINGULYAN, G.P.; MALAKHOV, P.Ye.; KRIVOUKHOV, V.A., doktor tekhn.nauk, red.; GRANOVSKIY, G.I., prof., doktor tekhn.nauk, red.; TRET'YAKOV, I.P., prof., doktor tekhn.nauk, red.; ALEKSEYEV, S.A., dotsent, red.; MALOV, A.M., dotsent, kand.tekhn.nauk, red.; SHAKHNAZAROV, M.M., dotsent, red.; VOL'SKIY, V.S., red.; GAL'TSOV, A.D., red.; KABANOV, N.Ya., red.; TOLCHENOV, T.V., red.; KHARITONOV, A.B., red.; KHISIN, R.I., red.; SHOR, M.I., red.; SEMENOVA, M.M., red. izd-va; EL'KIND, V.D., tekhn.red.

[Time norms in general machinery manufacturing for applying coats of lacquer; large, medium, and small scale production]
Obshchemashinostroitel'nye normativy vremeni na lakokrasochnye pokrytiia; krupnoseriinnoe, seriinnoe i melkoseriinnoe proizvodstvo. Moskva, Gos.nauchno-tekhn.izd-vo mashinostroit. lit-ry, 1959. 83 p. (MIRA 12:6)

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(Painting, Industrial) (Machinery industry)

G. I. Pogodin, G. I.

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PHASE I BOOK EXPLOITATION

SOV/2367

Moscow. Vysshaya partiynaya shkola. Kafedra promyshlennogo
proizvodstva i stroitel'stva

Dostizheniya nauki i tekhniki i peredovoy opyt v promyshlennosti
i stroitel'stve. vyp. 4: Tekhnologiya mashinostroyeniya
/obrabotka metallov rezaniyem/ (Achievements in Science and
Technology and Advanced Practices in Industry and Civil Engin-
eering. Nr 4: Machine-building Technology /Metal Cutting/) Moscow, Izd-vo VPSH i AON pri TsK KPSS, 1959. 189 p. 20,000
copies printed.

Ed. (Title page): G.I. Pogodin-Alekseyev, Doctor of Technical
Sciences, Professor; Eds. (Inside book): A.G. Kokoshko and
R.D. Beyzel'man; Tech. Ed.: K.M. Naumov.

PURPOSE: This collection of papers is intended for engineers,
technicians, and students associated with metal cutting.

COVERAGE: This collection of papers deals with scientific achieve-
ments and progressive methods in metal cutting; improvements in
the technology of machinery construction; technical progress
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Achievements in Science (Cont.)

SOV/2367

in machine-tool and instrument construction; and designs for the automation of metalworking machine tools and transfer machines. No personalities are mentioned. There are no references.

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~~GRANYSKIY, Gorbart Ivanovich~~, prof., doktor tekhn.nauk

Scientific achievements and advanced experience in metal cutting.
Dost.nauki i tekhn. i pered.op.v prom. i stroi. no. 4:3-39 '59.
(MIRA 12:10)

(metal cutting)

VLASOV, A.F.; GRANOVSKIY, G.I., prof., retsenzent; ROSSIYANOV, D.D., inzh.,
retsenzent; BROMLEY, M.F., kand. tekhn. nauk, red.; SMIRNOVA, G.V.,
tekhn. red.

[Removing dust and chips in machining brittle materials] Udalenie pyli
i struski pri obrabotke khrupkikh materialov, Moskva, Gos. nauchno-
tekhn. izd-vo mashinostroit. lit-ry, 1961. 130 p. (MIRA 14:8)
(Metal cutting)

PHASE I BOOK EXPLOITATION

SOV/5291

Soveshchaniye po kompleksnoy mekhanizatsii i avtomatizatsii tekhnologicheskikh protsessov v mashinostroyeni. 2d, Moscow, 1956

Avtomatizatsiya mashinostroitel'nykh protsessov. t. III: Obrabotka rezaniyem i obshchiye voprosy avtomatizatsii (Automation of Machine-Building Processes. v. 3: Metal Cutting and General Automation Problems) Moscow, Izd-vo AN SSSR, 1960. 296 p. (Series: Its: Trudy, t. 3) 4,700 copies printed.

Sponsoring Agency: Akademiya nauk SSSR. Institut mashinovedeniya. Komissiya po tekhnologii mashinostroyeniya.

Resp. Ed.: V. I. Dikushin, Academician; Ed. of Publishing House: V. A. Kotov; Tech. Ed.: I. F. Kuz'min.

PURPOSE: This collection of articles is intended for technical personnel concerned with the automation of the machine industry.

COVERAGE: This is Volume III of the transactions of the Second Conference on the Full Mechanization and Automation of Manufacturing Processes in the Machine Industry, held September 25-29,

Card 1/7

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Automation of Machine-Building Processes (continued)

1956. The transactions have been published in three volumes. Volume I deals with the hot pressworking of metals, and volume II, with the actuation and control of machines. The present volume deals with the automation of metal machining and work-hardening, and with general problems encountered in automation. The transactions on the automation of metal-machining processes were published under the supervision of F. S. Dem'yanok and A. M. Karatygin, and those on the automation of work-hardening processes, under the supervision of E. A. Satel' and M. O. Yakobson. No personalities are mentioned. There are no references.

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BOBROV, Vsevolod Fomich, kand. tekhn. nauk; GRANOVSKIY, G.I.,
doktor tekhn. nauk, prof., retsenzent; BALANDIN, A.F., red.
izd-va; UVAROVA, A.F., tekhn. red.

[Effect of the angle of inclination of the main cutting edge
of cutters on the process of metal cutting] Vliianie ugla na-
klona glavnoi rezhushchei kromki instrumenta na protsess re-
zaniia metallov. Moskva, Mashgiz, 1962. 151 p. (MIRA 15:7)
(Metal cutting)

GRANOVSKIY, G.I., doktor tekhn.nauk, prof.

Measurement methods and criteria for the wear of metal-cutting tools.
Vest.mashinostr. 43 no.9:45-51 S '63. (MIRA 16:10)